

NEW OR LITTLE KNOWN GENERA OF NORTH AMERICAN
SYRPHIDÆ.

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In the preparation of a synopsis of the North American genera of Syrphidæ, I have found several new species that could not be placed in any of our known genera. A careful study of the figures and descriptions of exotic forms has not thrown much light upon them, and I am therefore constrained to regard them as new.

With the genera included in the present paper, and resuscitating Macquart's *Toxomerus*, the number now recorded from North America will reach sixty, all but five or six of which are in the writer's collection. Of these, but nine or ten have not yet been found east of the Central Plains, and the following, only, that are not now known west of that region, viz., *Triglyphus*, *Senogaster*, *Pyrophaena*, *Doros*, *Ocyptamus*, *Rhingia*, *Brachypalpus*, *Somula*, *Temnostoma*, *Merapioidus*, *Pterallastis*, *Teuchocnemis* and *Lepidomyia*, leaving nearly forty genera that occur entirely across the continent; indeed a large proportion of the species are identical from the Atlantic and Pacific regions.

Merapioidus villosus Bigot, Bul. Soc. Ent. France, 1879, No. 6, p. 64. An aberrant and well marked genus, easily recognized by the peculiar structure of the antennæ, the third joint of which is extended on its upper anterior part into an elongate cone, slightly bent forward and terminating in the thickened arista. The arista is really subterminal, showing the development of such genera as *Callicera* and *Ceria*. Body short, oval, abdomen with interrupted metallic fasciæ. Its relationship is remote from *Milesia* in Schiner's acceptation (*Sphixea* Rond., Bigot.) viz., with the closed sub-marginal cell. It may be placed in the neighborhood of *Criorhina*, *Chrysochlamys*, or the following:

Brachymyia gen. nov. Head short, broad, antennal prominence well developed in the male, conic, less so in the female. First joint of antennæ longer than the second, third broader than long, transversely oval. Face much produced downward and forward, conical, pointed, tuberculate, cheeks broad. Front short, eyes bare, separated in the male by the tumid ocelligerous tubercle. Body with long pile, abdomen short, broad, arched, without markings. Legs all slender, simple. Third longitudinal vein nearly straight; small cross vein very oblique, near outer third of discal cell.

Brachymyia lupina, sp. nov., ♂ ♀. Face on the sides covered with

yellowish gray pollen, with the broad median stripe and cheeks broadly shining black. Antennæ brownish black, first joint twice as long as second; third joint somewhat reddish or brownish black. Front in the female shining black, covered with reddish or fulvous pile or hair, on the sides below pollinose. Frontal triangle in the male pollinose as on the face, the tumid ocelligerous callosity black, opaque, slightly pollinose and with a tuft of long reddish pile. Proboscis in female as long as the thorax, shorter in male. Posterior orbits below tumid, thickly pollinose and with a conspicuous fringe of yellowish white pile. Thorax black, shining, with metallic lustre and reddish or fulvous pile, longer and thicker on the scutellum. Abdomen shining black, with sparse similarly colored pile, the hind borders of the segments narrowly pollinose. Legs black, extreme tips of femora, basal third of tibiae, and basal joints of tarsi, especially the middle pair, a brownish yellow or luteous. Wings hyaline, a faint blackish shade near the tip; near the origin of third vein a narrow indistinct brownish cross band, small cross vein also narrowly clouded; first posterior cell closed in the border of the wing. L. c. 10-13 mm.; l. al. $7\frac{1}{2}$ -11 mm. Four specimens. California.

Brachymyia (? *Eriophora* Ph.) *nigripes* sp. nov., ♀. Sides of face covered with yellowish pollen, broad median stripe and cheeks shining black; front black with black pile. Antennae black, first joint but a little longer than the second. Proboscis long. Posterior orbits fringed with whitish pile below. Thorax black, with fulvous pile in front, across the middle with black, the pleurae, scutellum, and especially the posterior angles, with lighter, yellow, and more bushy pile or hair. Abdomen black, shining; short, broad, and arched; the sides of the second, and all the fourth and fifth segments with thick yellow pile; elsewhere the pile is shorter and black. Legs wholly black. Wings hyaline, a little shaded, near the tip, small cross vein faintly clouded, first posterior cell closed before the border of the wing, petiolate. L. c. 14 mm.; l. al. 13 mm. Five specimens. California.

The greater, more woolly pilosity, and the conically produced face leave me in doubt as to its relationship to *Eriophora* Ph. (Ver. zool. bot. Gesell. in Wien. 1865, p. 735, pl. xxvi., fig. 36).

A third species from Maine, rather larger than the last, differs in the two basal segments only of the abdomen being yellow pilose, and the tibiae and tarsi mostly a deep red.

Hadromyia gen. nov. Antennae situated below the middle of the

head, the antennal protuberance of moderate size. Antennae short, third joint obliquely oval, front (♀) rather narrow, somewhat arched, sides nearly parallel. Face deeply concave from antennae to tip, short, without tubercle, arched. Cheek very narrow, descending but a very short distance below the eye. Oval opening large, broad; proboscis short. Posterior orbit not tumid. All the femora very slightly thickened, simple, without spines, or protuberance. Abdomen uniformly black, broad, oval, arched. Sub-marginal cell open. Third longitudinal vein nearly straight, small cross vein quite oblique, beyond the middle of discal cell.

Allied to *Brachypalpus*, but differs in the simple unarmed femora, and the broad, short body.

Hadromyia grandis, sp. nov., ♀. Brassy black, shining. Front black, covered with gray pollen, and (except below) with short yellow pile, slightly intermixed with black at the vertex. Antennae reddish brown, blackish toward the base. Face a dull whitish yellow, cheeks black, shining. Dorsum of thorax from in front of the wings and pleurae thickly covered with short yellow pile. Posterior half of thorax, scutellum, and first three segments of abdomen with thick, short, black pile; fourth and fifth segments of abdomen with longer yellow pile, abdomen scarcely longer than thorax. Legs black with short black pile; knees slightly reddish, anterior tibiae in front, the tips of posterior tibiae behind and anterior and posterior tarsi, with short thick golden pile; middle tarsi reddish. Wings hyaline; costal cell and stigma yellow; posterior cell petiolate. L. c. 23 mm. L. al. 17 mm. Width of head and thorax 6 mm.; of second segment of abdomen $8\frac{1}{2}$ mm. One specimen. Washington Territory (H. K. Morrison).

? *Brachypalpus pulcher*, sp. nov., ♂ ♀. Face yellow with black cheeks, and with or without blackish or brown narrow median stripe; frontal triangle of the male yellow or fuscous; front in the female black, rather narrow, a little broader below, yellow pollinose on the sides, pile short, fuscous. Eyes of male with enlarged facets above. Antennae yellowish brown or black, first two joints short, third obliquely oval, of a lighter color near the base below. Dorsum of thorax and scutellum black, with a bluish or partly metallic reflection, or in better preserved specimens a metallic bronze, the pile of dorsum more fulvous, on postalar callosities, scutellum and pleurae, yellow. Abdomen of a brilliant golden or bluish bronze, with short golden pile and opaque black markings as follows: first segment except the sides, second segment on the anterior

part, and a band beyond the middle of about the same width, somewhat angulated in front, third segment similar, except the anterior border may be quite narrow and the cross band sub-interrupted, fourth segment in male wholly bronze, concealing the hypopygium, in female with very narrow front border and narrow interrupted cross band; the black is attenuated on the sides, not quite reaching the lateral margins. Legs yellow, femora rather stout, anterior and middle pairs mostly brownish or black, sometimes prevailing yellow blackish above, posterior femora varying from a blackish ring near the base, to almost wholly black, below with short black bristly hairs near this end; three last joints of tarsi black. Wings smoky hyaline, stigma yellowish brown, small cross vein near outer third of discal cell. Long c. 12-16 mm., 10 specimens. Mt. Hood, Oregon; Washington Territory (H. K. Morrison).

The fasciate abdomen of this species differs from all known *Brachypalpi*; the spines below the hind femora are also quite small. Its pilosity will hardly allow it to be placed with *Xylota*; besides, the face is not so receding as in that genus. The structure of the head is very much like the preceding genus. Its resemblance to *Sterphus* Ph. (l. c.) from Chili, is quite as great.

Eugeniomyia gen. nov. Allied to *Brachyopa*, but differs in the face being tuberculate, not carinate, rather more produced and less truncate, and in the abdomen being long as in *Xylota*. There are also well developed scutellar, postalar, dorsopleural and mesopleural bristles.*

Eugeniomyia rufa, sp. nov., ♂. Red. Head and antennae yellowish red, first two joints of antennae very short, third joint sub-quadrate, arista plumose. Dorsum of thorax darker, almost brownish red, with very short black hairs, and with two rather broad pollinose stripes, abbreviated behind, and enclosing in front a black spot not reaching the suture. Pleurae with sparse yellowish white pile. Abdomen narrower than the thorax and much longer, nearly bare, shining, somewhat blackish towards the end. Legs red, basal joints of tarsi yellowish, terminal joints blackish, femora considerably swollen, with tufts of yellowish white pile below near the base, the middle and more especially the posterior pairs and posterior tibiae with sparse short bristle-like spines. Wings clouded with brownish on the anterior part, sub-hyaline behind. L. c. 14 mm.; l. a. 10 mm. One specimen, Washington Territory (H. K. Morrison).

* See Osten Sacken: "An Essay of Comparative Chaetotaxy," Mitth. d. Münchener Ent. Ver., 1881.